

THE STRING DRAIN—A SUPPLEMENT TO THE ORDINARY DRAINAGE TUBE.

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THE method proposed is a simple adjunct to the drainage tube, and is, in so far as the writer is aware, novel. The liberty is taken of calling it "the *string drain*."

It consists in introducing one end of thirty or forty feet of rough string, highly hygroscopic, and completely aseptic, through the usual "Chassaignac drainage tube," so that, when the last is placed in the wound, the string may be drawn through, from time to time, as will be explained hereafter.

The string may be of cotton, linen or wool, that has been freed of fat and disinfected, for which, purpose, it is recommended that it be treated after the manner that v. Bergmann prepares his gauze—by immersing the absorptive string for one hour in the following: Sublimate 1, glycerine 50, alcohol 100, water 150, warmed, to be dried, and kept in hermetically sealed glass jars; it will then hold $\frac{1}{3}\%$, sublimate, and is very absorbent. The end of the string being passed into the tube, and the tube placed in the wound, and it closed, then the strings and aperture or apertures of tube are covered by the usual protective of "gutta-percha paper" or "Lister's oiled silk," to hinder evaporation or gluing of the string. The string is now tried to see that it draws freely, and is so placed that it lies along the line of least resistance, and closely applies to the body's surface; over the gutta-percha paper and string, the gauze and cotton, etc. are to be placed. The coil of the string may be kept in an antiseptic magazine, such as a glass bottle (suggested by my colleague, Dr. Arch. Dixon), which can be included in the bandage or left out, as desired; in the last case, when not being used, the bottle should be

tightly stoppered, and covered by an antiseptic bandage. The draw-end should be left out, and can be drawn upon from time to time as may be necessary until it comes free of secretion.

The soiled end of the string can then be cut away, and it and the bandage at its emergence disinfected with a saturated solution of iodoform in ether.

The other end should be protected most rigidly against infection, as mentioned above.

Or the string might be placed in a coil in the wound itself, in form of tampon, and passed out through a drainage tube.

This might apply in wounds such as would be left after the removal of tumors (as lipoma), or might thus be used with Martin's drainage tube in "Douglas' fossa."

The process advocated is recommended during the first forty-eight hours when the wound is pouring out a large quantity of serum, before granulation is established on the wound's walls, which follows especially operations in which "carbolic" or other irritants are extensively employed, and in this time the tube is most likely to be stopped by coagula.

Also, the secretion thus brought out would be a ready criterion for examination of the wound's progress.

Kehrer substitutes for "Cheyne's catgut bundle" a similar arrangement of wool, the hairs lying parallel, and secured in a drainage tube of glass. Mosetig v. Moorhof extols this method, having tried it in a case of ovariectomy.

Macewen inserts a bundle of horse-hair in a decalcified bone drain, the hair to be removed in forty-eight hours, the tube to remain 'in situ.'—Mosetig v. Moorhof, *Chir. Technik*, u. v. a.

These methods are mentioned, because they are the only ones in which the writer has been able to find a resemblance, to the one described above.